TOSHIBA

FILE NO. 330-200310
SAFETY PRECAUTION

SERVICE MANUAL

3LCD PROJECTOR

TLP-T70M, TLP-T71M
TLP-T60M, TLP-T61M
TLP-S40, TLP-S41
TLP-S10

Document Created in Japan Aug. 2003 U

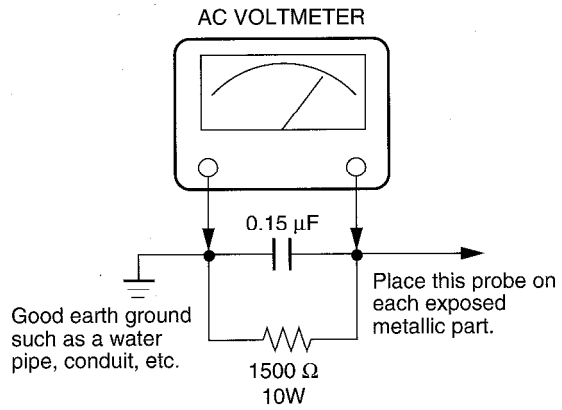
SAFETY PRECAUTION

WARNING: Service should not be attempted by anyone unfamiliar with the necessary precautions on this projector. The following are the necessary precautions to be observed before servicing this chassis.

1 . An isolation Transformer should be connected in the power line between the projector and the AC line before any service is performed on the projector.

2. When replacing a chassis in the cabinet, always be certain that all the protective devices are put back in place, such as; non-metallic control knobs, insulating covers, shields, isolation resistor-capacitor network etc.

3. Before returning the set to the customer, always perform an AC leakage current check on the exposed metallic parts of the cabinet, such as terminals, screwheads, metal overlays, control shafts etc. to be sure the set is safe to operate without danger of electrical shock. Plug the AC line cord directly into a AC outlet (do not use a line isolation transformer during this check). Use an AC voltmeter having 5000ohm per volt or more sensitivity in the following manner: Connect a1500ohm 10W resistor, paralleled by a 0.15 µF, AC type capacitor, between a known good earth ground (water pipe, conduit, etc.) and the exposed metallic parts, one at a time. Measure the AC voltage across the combination of 1500ohm resistor and 0.15 µF capacitor. Reverse the AC plug at the AC outlet and repeat AC voltage measurements for each exposed metallic part. Voltage measured must not exceed 5.25V(rms). This corresponds to 3.5 mA(AC). Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.


AC VOLTMETER
0.15 µF
Place this probe on each exposed metallic part.
Good earth ground such as a water pipe, conduit, etc.
1500 Ω
10W

PRODUCT SAFETY NOTICE

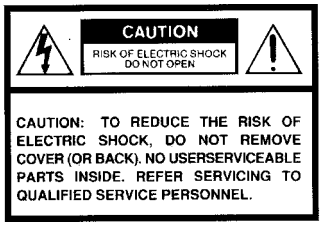
Many electrical and mechanical parts in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the international hazard symbols on the schematic diagram and the parts list.

Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire or other hazards.

ULTRAVIOLET DANGER IN SERVICE MODE

Eye damage may result from directly viewing the light produced by the lamp used in this product. Always turn off lamp before opening this cover. Ultraviolet radiation eye protection required during servicing.

SAFETY PRECAUTIONS


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USERSERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. DANGEROUS HIGH VOLTAGES ARE PRESENT INSIDETHE ENCLOSURE. DO NOT OPEN THE CABINET. REFER SERVICING TO QUALIRED PERSONNEL ONLY.

CAUTION: Laser beam is emitted when the laser button of the remote control is pressed. Do not look from the front of the remote control. Do not face toward a person or to a mirror.

FCC Radio Frequency Interference Statement

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiates radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

WARNING: Changes or modifications made to this equipment, not expressly approved by Toshiba, or parties authorized by Toshiba, could void the user's authority to operate the equipment.

Notice: This Class A digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

IMPORTANT PRECAUTIONS

Save Original Packing Materials

The original shipping carton and packing materials will come in handy if you ever have to ship your LCD projector. For maximum protection, repack the set as it was originally packed at the factory.

Avoid Volatile Liquid

Do not use volatile liquids, such as an insect spray, near the unit. Do not leave rubber or plastic products touching the unit for a long time. They will mar the finish.

Moisture Condensation

Never operate this unit immediately after moving it from a cold location to a warm location. When the unit is exposed to such a change in temperature, moisture may condense on the crucial internal parts. To prevent the unit from possible damage, do not use the unit for at least 2 hours when there is an extreme or sudden change in temperature.

In the spaces provided below, record the Model and Serial No. located at the rear of your LCD projector.

Mode No._____ Serial No. _____

Retain this information for future reference.

IMPORTANT SAFETY INSTRUCTIONS

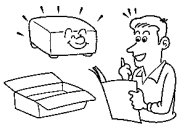
CAUTION: PLEASE READ AND OBSERVE ALLWARNINGS AND INSTRUCTIONS GIVEN IN THIS OWNER'S MANUAL AND THOSE MARKED ON THE UNIT. RETAIN THIS BOOKLET FOR FUTURE REFERENCE.

This set has been designed and manufactured to assure personal safety. Improper use can result in electric shock or fire hazard. The safeguards incorporated in this unit will protect you if you observe the following procedures for installation, use and servicing. This unit is fully transistorized and does not contain any parts that can be repaired by the user.

DO NOT REMOVE THE CABINET COVER, OR YOU MAY BE EXPOSED TO DANGEROUS VOLTAGE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL ONLY.

1. Read Owner's Manual

After unpacking this product, read the owner's manual carefully, and follow all the operating and other instructions.



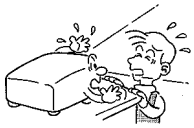
2. Power Sources

This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company.

For products intended to operate from battery power, or other sources, refer to the operating instructions.

3. Source of Light

Do not look into the lens while the lamp is on. The strong light from the lamp may cause damage to your eyes or sight.



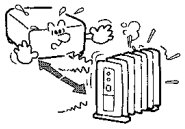
4. Ventilation

Openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

IMPORTANT SAFETY INSTRUCTIONS

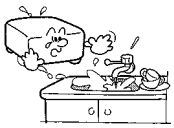
5. Heat

The product should be situated away from heat sources such as radiators heat registers, stoves, or other products (including amplifiers) that produce heat.



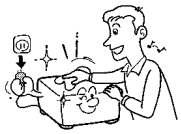
6. Water and Moisture

Do not use this product near water - for example, near a bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool and the like .



7. Cleaning

Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

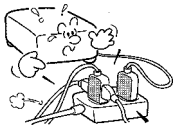


8. Power-Cord Protection

Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.

9. Overloading

Do not overload wall outlets; extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.



10. Lightning

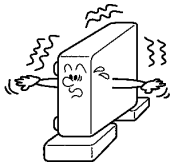
For added protection for this product during storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet.

This will prevent damage to the product due to lightning and power-line surges.

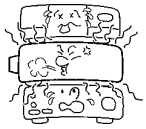
IMPORTANT SAFETY INSTRUCTIONS

11. Object and Liquid Entry
Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

12. Do not place the product vertically
Do not use the product in the upright position to project the pictures at the ceiling, or any other vertical positions. It may fall down and dangerous.



13. Stack Inhibited
Do not stack other equipment on this product or do not place this product on the other equipment.
Top and bottom plates of this product develops heat and may give some undesirable damage to other unit.



14. Attachments
Do not use attachments not recommended by the product manufacturer as they may cause hazards.

15. Accessories
Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions and should use a mounting accessory recommended by the manufacturer.
A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.

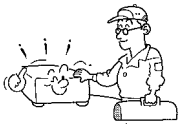
IMPORTANT SAFETY INSTRUCTIONS

16. Damage Requiring Service
Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
a) When the power-supply cord or plug is damaged.
b) If liquid has been spilled, or objects have fallen into the product.
c) If the product has been exposed to rain or water.
d) If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
e) If the product has been dropped or damaged in any way.
f) When the product exhibits a distinct change in performance - this indicates a need for service.

17. Servicing
Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

18. Replacement Parts
When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards. (Replacement of the lamp only should be made by users.)

19. Safety Check
Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.



TOSHIBA

FILE NO. 330-200310
ELECTRICAL ADJUSTMENT

SERVICE MANUAL

3LCD PROJECTOR

TLP-T70M, TLP-T71M
TLP-T60M, TLP-T61M
TLP-S40, TLP-S41
TLP-S10

Document Created in Japan Aug. 2003 U

ELECTRICAL ADJUSTMENT

1. Preparation

<Test equipment and jigs>
. Personal Computer
(Windows P/C, OS: Windows 95/98, ME, 2000, XP)
. Adjustment software:
(SINGO98.exe, DPJAdjustmentTool2.exe)
. RGB cable, Serial control cable (RS232C)

<For Connection and Setting of Personal Computer>
(1) Connection of personal computer
Connect a computer as shown in following Fig. 5-1.
Use supplied serial control cable (RS232C) for connection.

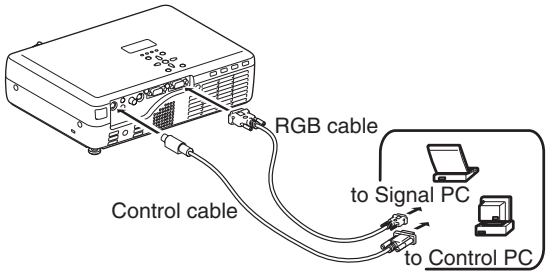


Fig. 5-1

(2) Adjustment software
. When the Adjustment software (DPJAdjustmentTool2.exe) is started, the following starting (initial) screen image (Fig. 5-2) appears.

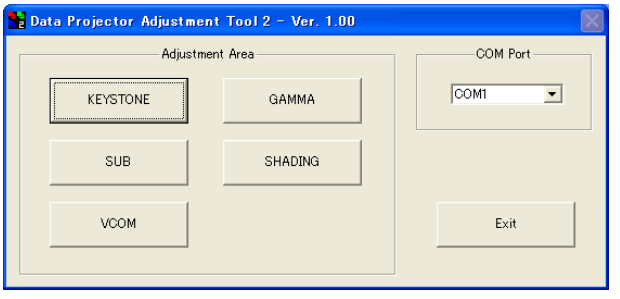
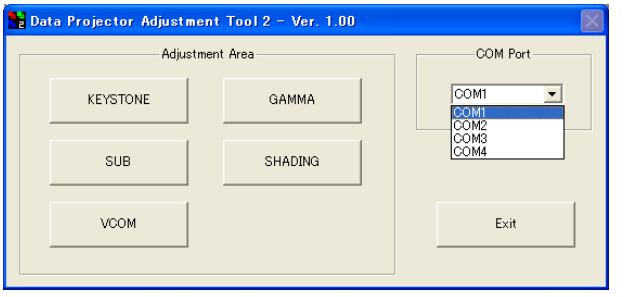


Fig. 5-2

. Adjustment software (DPJAdjustmentTool2.exe) operates following adjustments.
a. Initial setting of keystone correction (KEYSTONE)
b. Initial adjustment of input signal level (SUB)
c. LCD panel drive center voltage adjustment (VCOM)
d. LCD panel gamma adjustment (GAMMA)
e. LCD panel color shading adjustment (SHADING)

(Note)
When replacing main PC board, adjustment procedure of item a to e should be applied.
When replacing LCD panel, adjustment procedure item c to e should be applied.

(3) Setting of communication (COM) port
Select your computer's COM port (COM1 to COM4) from COM port pull-down menu.



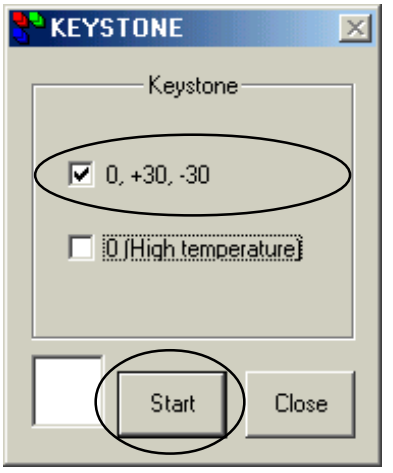
(4) Turn on the power of the projector, and make sure to see the starting (initial) screen disappears.

2. Setting of keystone correction
(Perform the adjustment when main PC board is replaced)

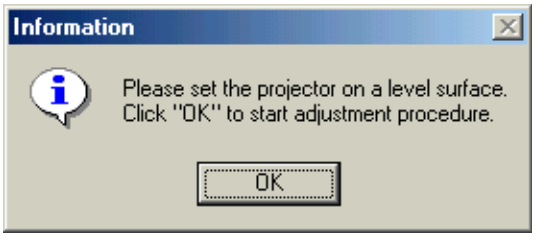
This operation initializes the data of the tilt sensor for keystone correction.
Tilt sensor's performance abilities vary with the sensors, and the sensor output data is affected by change of ambient air temperature. For the measure above, firstly the micro computer memorizes output data when the projector is set on level and ±30 degree surface as general data. Then the software detects tilt of the projector with the general data as a base. Moreover, the micro computer memorizes the level position data when the sensor is warmed up with the heat run. The data is used to correct the temperature drift correction.

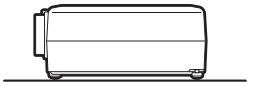
2-1. Adjustment of low temperature

(1) Select [KEYSTONE] from starting menu.
Check 0, +30, -30 and click [Start] button.

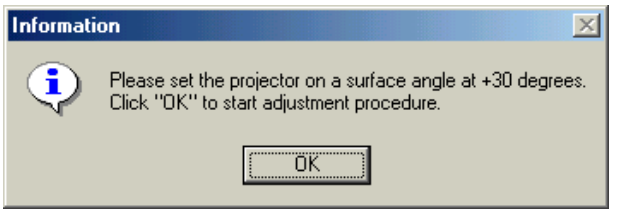


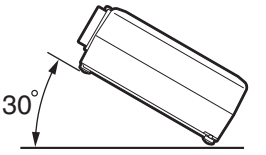
(2) Set the projector on a level surface.
Click [OK] to start.



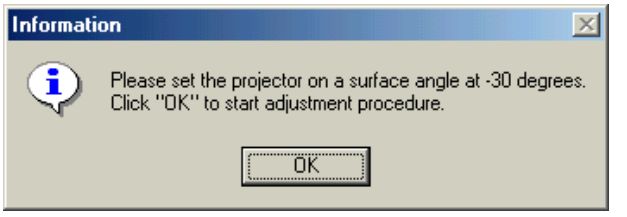


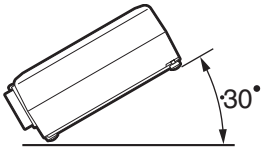
(3) Keep projector on 30 degree and click [OK].





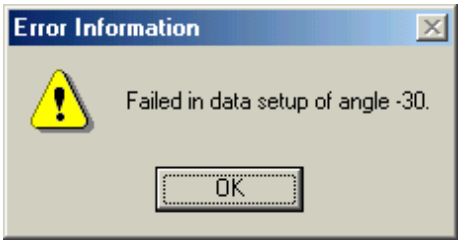
(4) Keep projector -30 degree and click [OK].





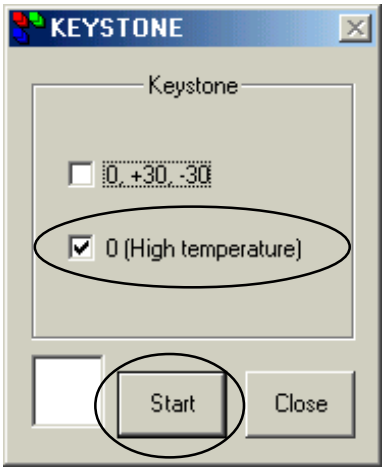
(5) After the adjustment was completed, the following message appears. Click [OK].

(Note)
When the following error message appears (the projector is not tilted accurately +/- 30 degree, etc), check the connection or set the projector to specified angle. And then restart the adjustment from beginning.

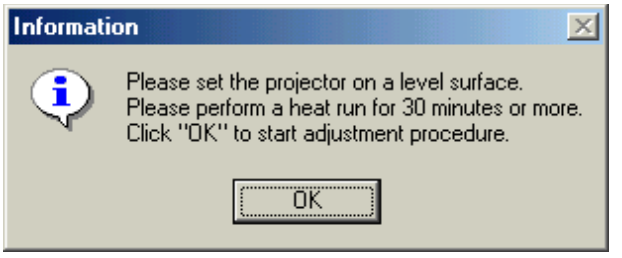


2-2. Adjustment of high temperature

(1) Perform heat-run for 30 minutes or more.
Select [KEYSTONE] from starting menu of adjustment software.
Check 0 (High temperature) and click [Start].



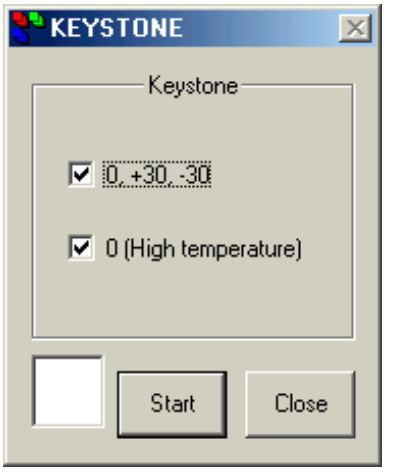
(2) Place the projector on a level surface and make sure it is warm enough.
Click [OK] button.


Information
Please set the projector on a level surface.
Please perform a heat run for 30 minutes or more.
Click "OK" to start adjustment procedure.
OK

(3) Click [OK] button.

(4) After the adjustment, click [Close] to exit.

(Note)
Only for the keystone correction initialization of high and low temperatures at one time, check both [0,+30,-30] and [0(High temperature)] check boxes on the menu and click [start]. In this case, perform enough heat-run before starting the initializing of 0 (High temperature).



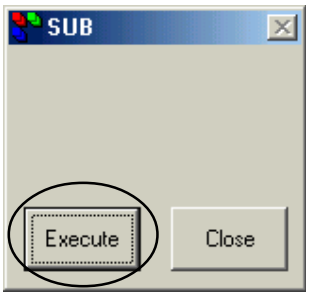
3. Input signal level adjustment
(Perform the adjustment when main PC board is replaced)

This procedure corrects variation of input signal level by each main PC board and adjusts to stabilize.
The input signal level is adjusted automatically with specified signal inputting.

(1) Start the signal generating software (SINGO98.exe) and input all-white signal.

Then, right-click to display the following color pallets. Switch to white or black according to the adjustment.

(2) Select [SUB] from starting menu and click [Execute].

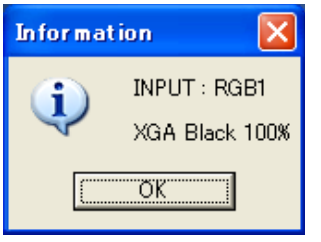


(Note)
After above the step, the message box according to each model appears.
Make sure that the specified signal is supplied, click [OK] button.
The connection change of the unit is not required.

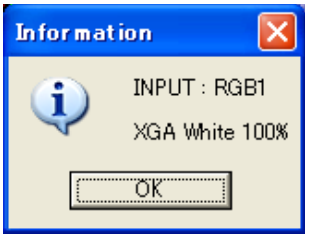
(Eg.: In case of TLP-T71)

(3) Input all-black signal to the XGA (1024 x 768) and click [OK] button.
(The unit will be automatically switched to Computer input.)

* Screen resolution selection is executed on the Display Properties.

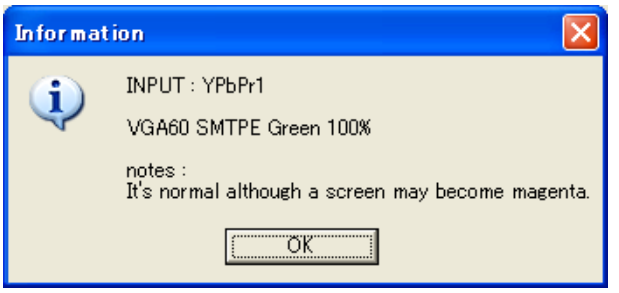


(4) Input all-white signal to the XGA and click [OK] button.



(5) Input Green signal to the VGA (640 x 480)/60Hz (The unit will be automatically switched to the Y/Pb/Pr input.)

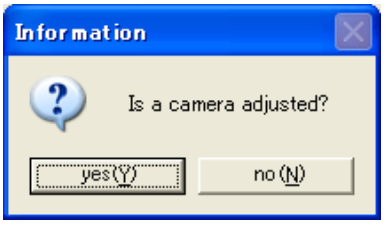
* Screen resolution selection and screen refresh rate selection are executed on the Display Properties.



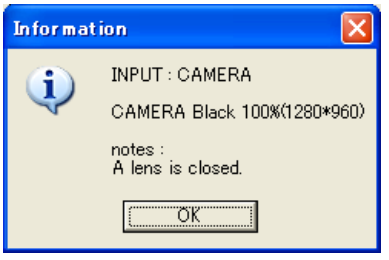
Document camera model only

Refer to item (6) to (9).

(6) When the following message appears, click [yes].



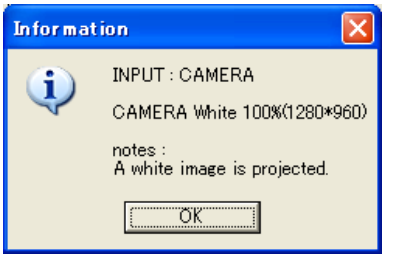
(7) When the following message appears, cover the lens of camera with your hand. Then click [OK] button.



(Note)
Covering the lens of the camera with hand makes Black 100% signal.

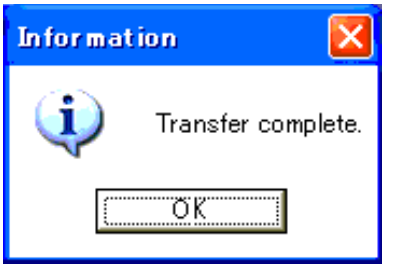
(8) When the following message appears, click [yes].

(9) When the following message appears, touch the camera lens on a bright light.
The screen should be all white. The click [OK] button.

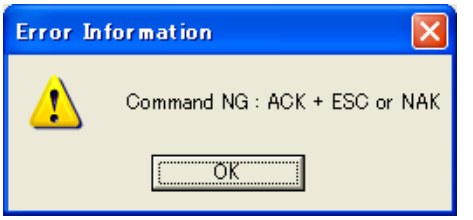


(Note)
Touching the camera lens on a bright light makes White 100% signal.
So, the screen will be all white.

(10) After the adjustment was completed, the following message appears. Click [OK].



(Note)
When inputting non-specified signals, the following message appears. Check to be sure that the setting values of the screen resolution and screen refresh rate are the specified values.

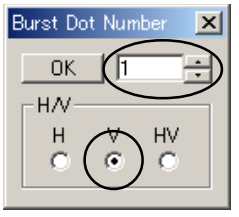


4. LCD panel drive center voltage adjustment (Perform the adjustment when replacing main PC board or LCD panel)

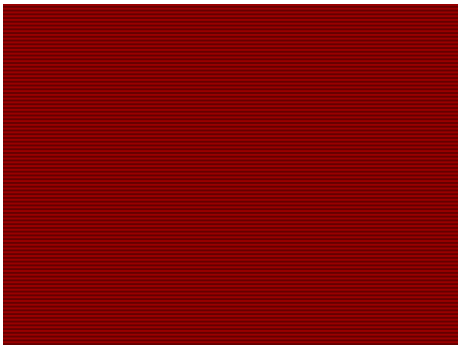
When inputting video signal data to the LCD panel, center voltage of specified range is adjusted to output symmetrical wave.
If this voltage is out of alignment, the LCD panel is damaged by flicker or burning. So it must adjust completely.
R, G and B panels should be adjusted for each front projection mode (Front) and Ceiling hunger projection mode (Ceiling).

(1) Start signal generate software (SINGO98.exe) and select the Burst signal to output.

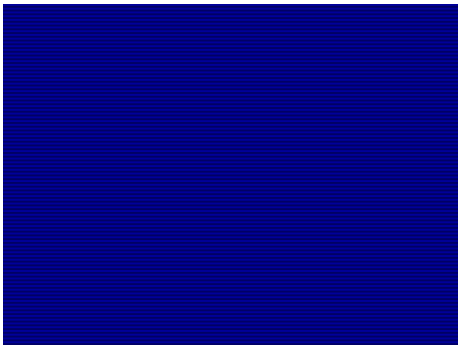
(2) Right-click to display the Burst submenu, enter [1] in the line interval box and select [V] in the H/V.



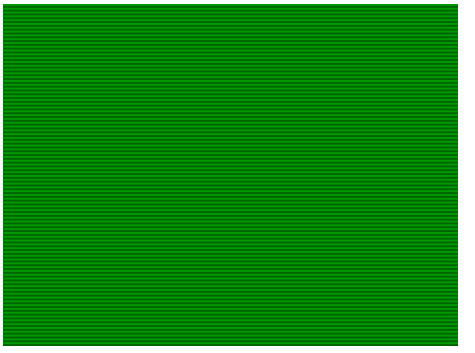
(3) Press [R], [G] or [B] key to select the adjustment. When you press the key, it turns ON or OFF. For example, to display red, press [G] and [B].



R-Burst

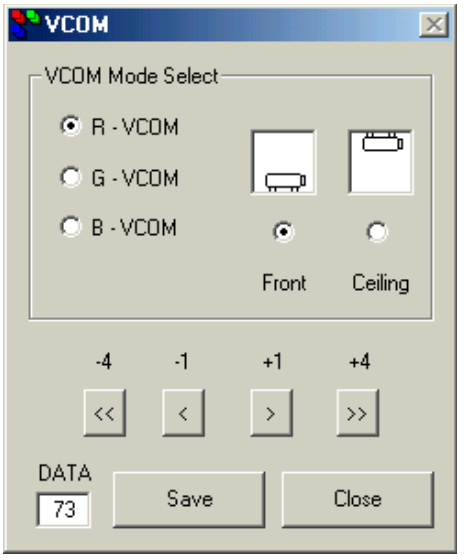


B-Burst



G-Burst

(4) Select [Front] button first, and select R, G or B button.
(When you adjust the R level, then select R-VCOM)



The current data is displayed in DATA column. Push (+1) or (-1) button; adjust the data to reduce the flicker to its minimum point.

By pushing the (+4) or (-4), the data is adjusted in greater steps.

After the adjustment, click the [Save] to save the data.

Adjust G and B panels too.
At this time, generates the signal corresponding to adjusting color.

(Note)
Take notes of the flicker appearing data by fluctuation of the data.
Input the data by reference to midpoint between the highest and lowest data.

(5) Select [Ceiling] button.
Adjust in the same procedures as step 4, and click the [Save] to save the data.

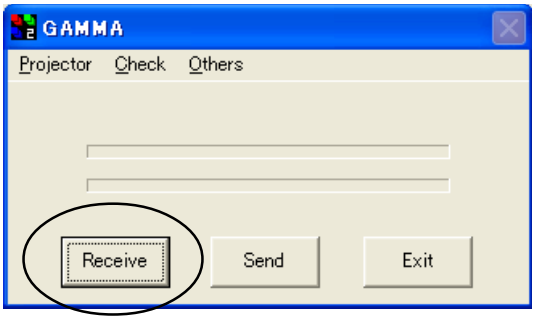
5. Gamma Adjustment (Perform the adjustment when main PC board is replaced)

The VT (input voltage-optical transmissivity) characteristics of the LCD panel are uneven. So gamma correction is required. The adjustment is used to write already corrected gamma data after the main PC board replacement.

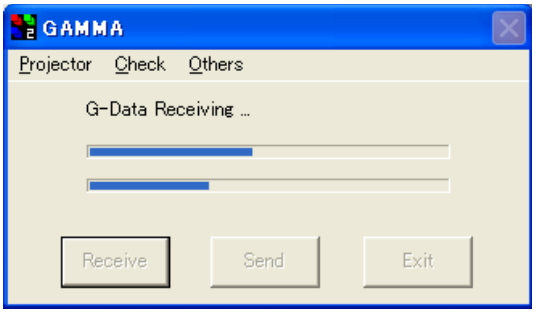
5-1. Copy of gamma data

When the main PC board is in operation, gamma data can be read from the projector. Copy the data of current main PC board to new one.

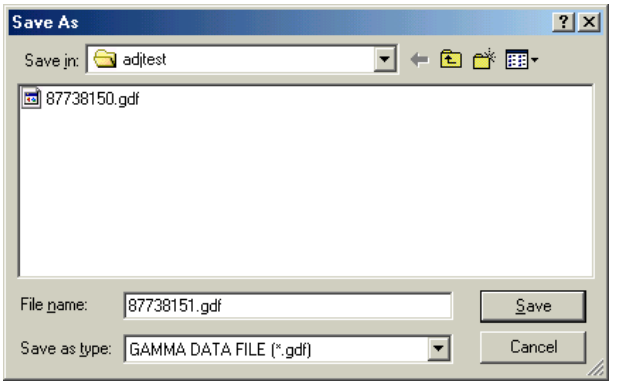
(1) Select [GAMMA] and click [Receive].



During data transfer, the progress bar shows the status.



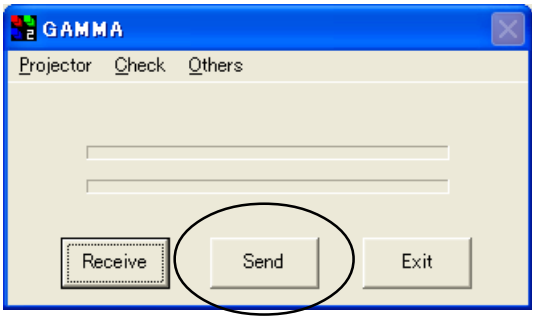
(2) After the transfer is completed, message box appears to save data. Name the file and click [Save] to save transferred data.



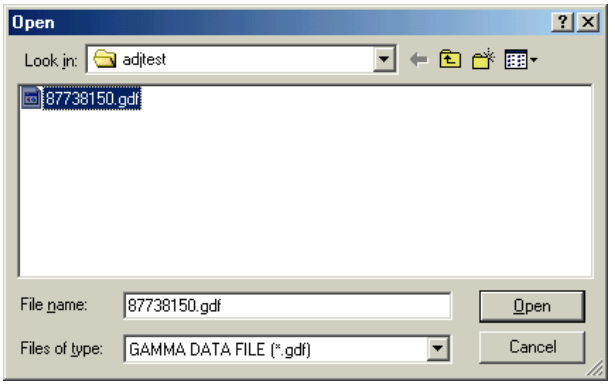
(3) Click [OK] to complete.

(4) Replace the main PC board with new one and turn on power of the projector.

(5) Select [GAMMA] from the staring menu and click [Send].



(6) Select the previously saved file (step (2)) and click [Open].



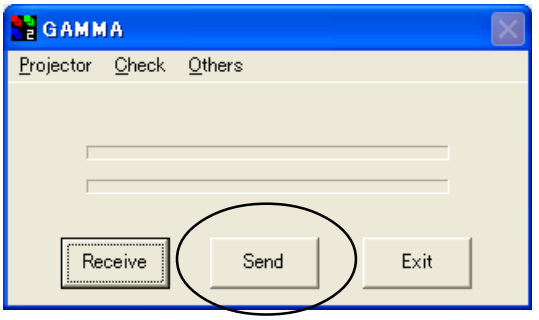
(7) After the transfer is completed, the following message appears. Click [OK] button.

(Note)
The transferred gamma data will be automatically saved.

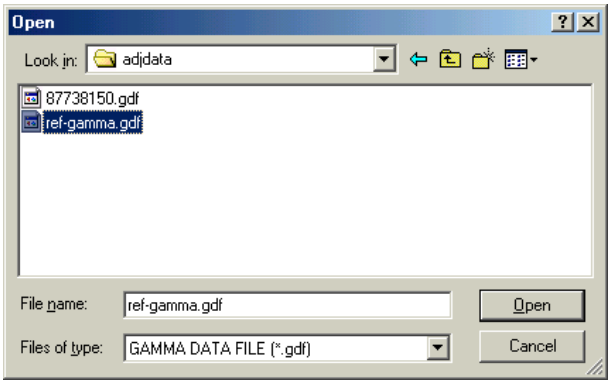
5-2. Data writing

If the gamma data is not read from the main board, write down the reference data.

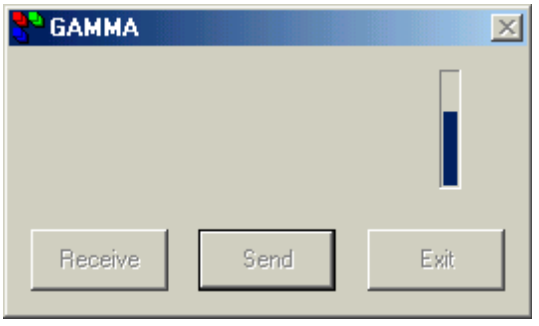
(1) Select [GAMMA] and click [Send].



(2) Select the reference file (ref-gamma gdf) and click [Open].



(3) During data transfer, the progress bar shows the status.



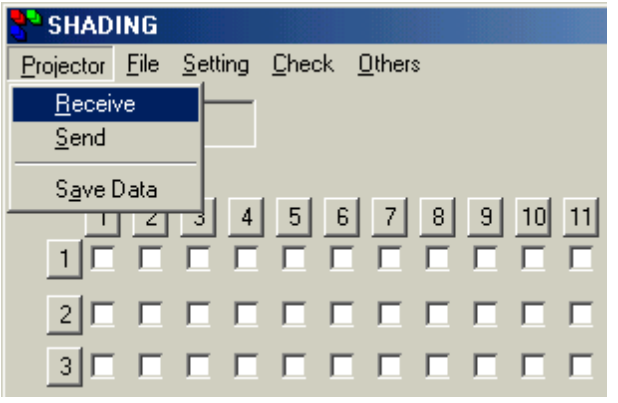
(4) After the transfer is completed, the following message appears. Click [OK] button.

6. Color shading correction

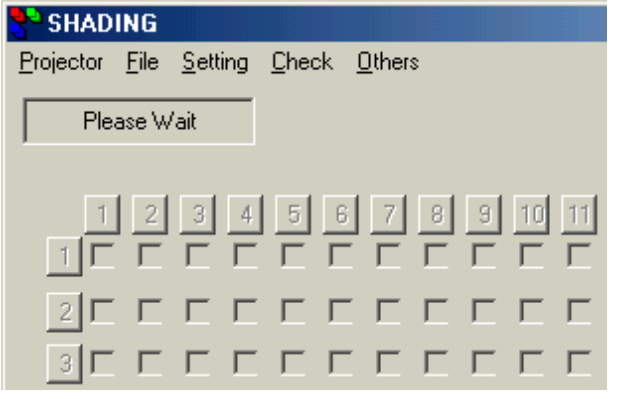
6-1. Copy of correction data

If the main PC board in operation and the color shading correction data can be read, copy the current board data to new one.

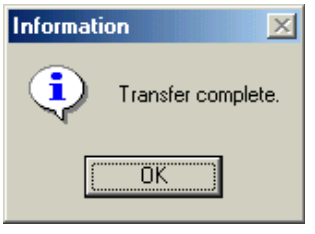
(1) Select [SHADING] from the starting menu of adjustment software and select [Receive] from [Projector] menu.



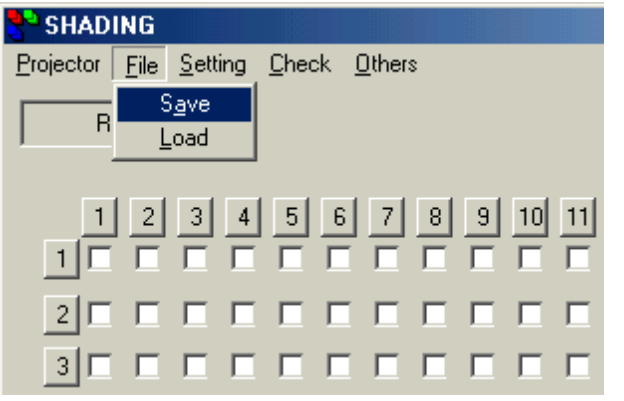
During loading the data, [Please Wait] message appears in the box.



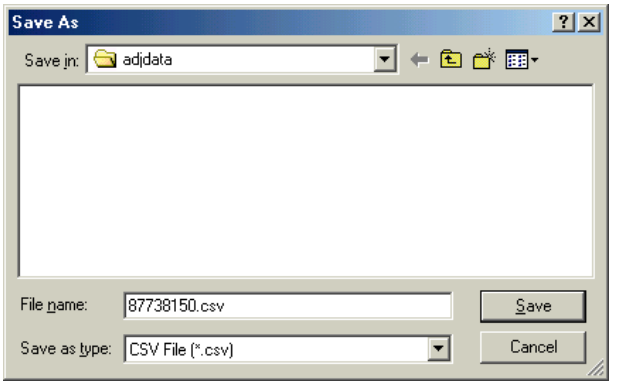
(2) After the shading data loading is complete, the following message appears. Click [OK] button.



(3) Save the downloaded shading data to the PC. Select [Save] from [File] menu.

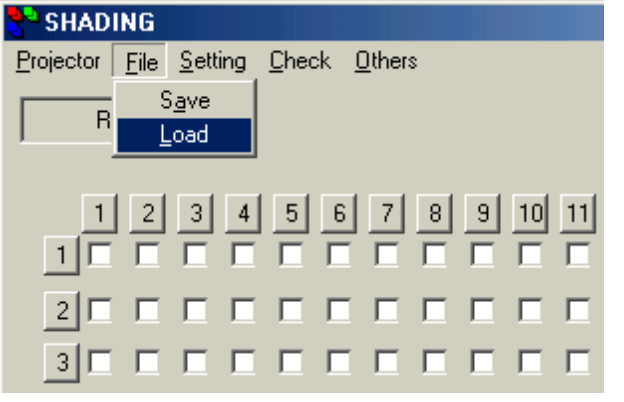


(4) Input file name (serial number, etc) and click [Save] button.

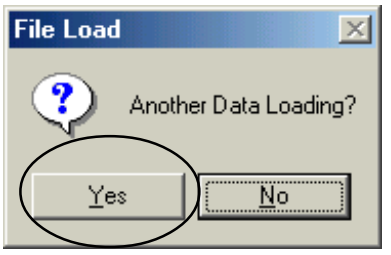


(5) Replace the main PC board with new one and turn on the power of the projector.

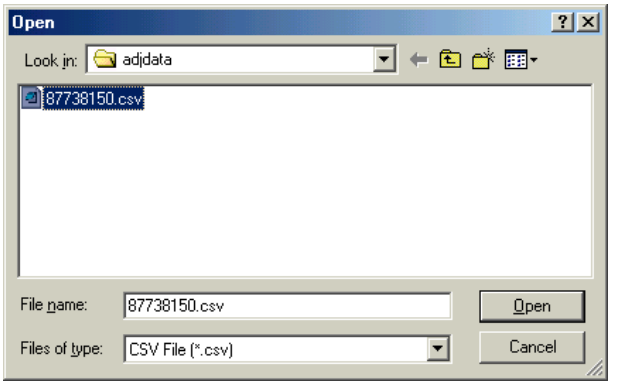
(6) Select [Load] from [File] menu to load the previously saved file (step (4)) to the PC.



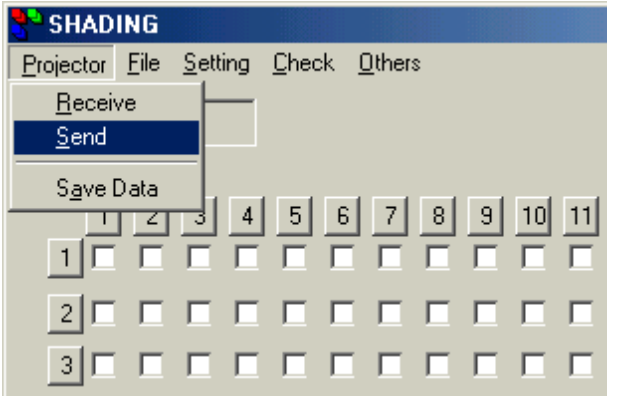
(7) The following message appears to load the saved data. Press [Yes] button.



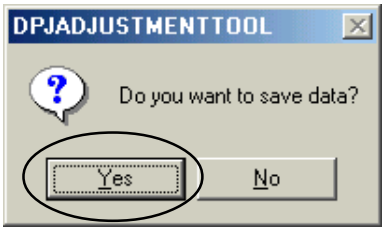
(8) Select the previously saved file (step (4)) and click [Open]. Click [Open] button.



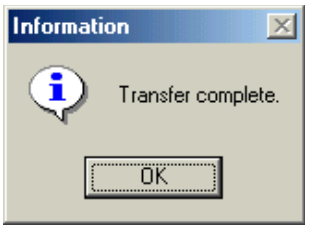
(9) Select [Send] from [Projector] menu to load the saved data in the main PC board.



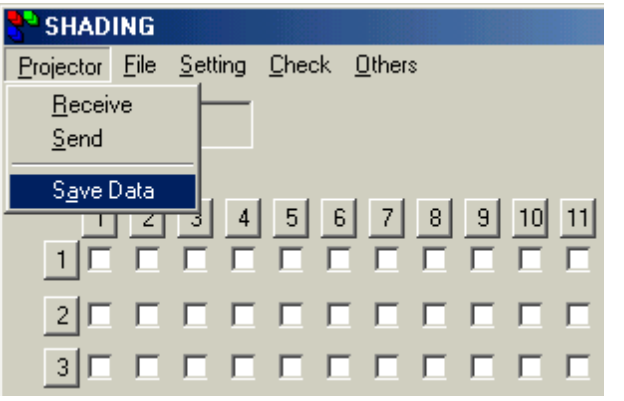
(10) When the following message appears, click [YES] button.



(11) After the transfer data is complete, click [OK] button.



(12) Save the data.
Click [Save Data] to save the data from [Projector] menu.

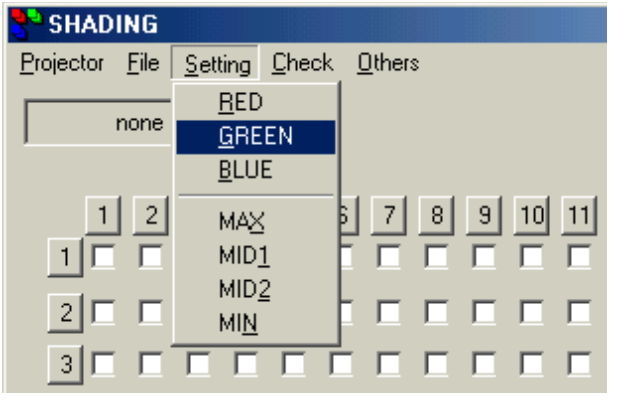


6-2. Adjustment of the color shading data directly

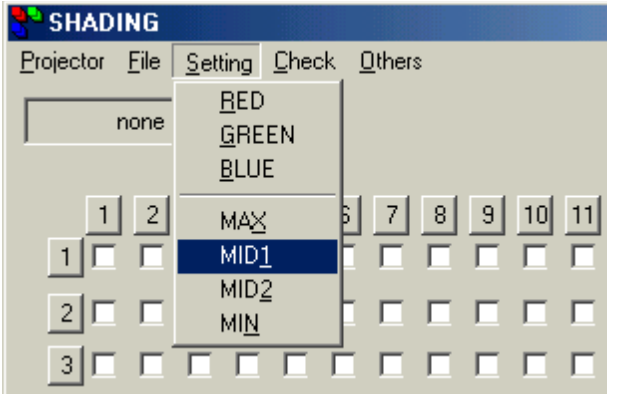
When the gamma data is not red by the main PC board failure or the LCD panel replacement, the color shading data is corrected with the adjustment software directly.

(1) Select [Shading] from the starting menu of the adjustment software.

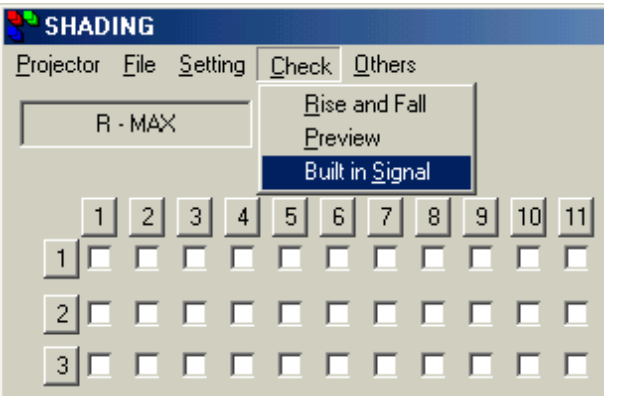
(2) Select a color (Red/Green/Blue) for adjustment from the [Setting] menu.



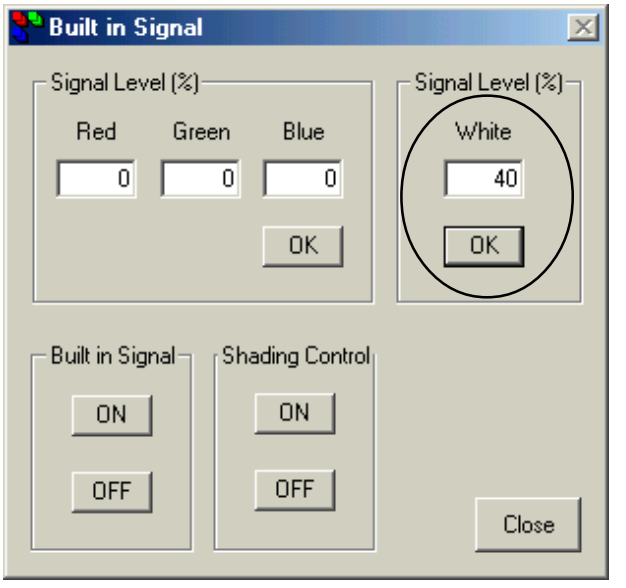
(3) Select a level (Max/Mid1/Mid2/Min) form the [Setting] menu.



(4) Select [Built in Signal] from [Check] menu.



(5) Input the luminous signal level on “White” box and click [OK] button. And then click [Close].



(Note)
Set the luminous signal level of each internal level as follows. (common to the colors)

MAX : 75%
MID1 : 50%
MID2 : 26%
MIN : 11%

(Eg.)
When [Mid1] is selected, input the signal level 50% on the box.

TOSHIBA

FILE NO. 330-200310
LED DISPLAY & SERVICE MODE

SERVICE MANUAL

3LCD PROJECTOR

TLP-T70M, TLP-T71M
TLP-T60M, TLP-T61M
TLP-S40, TLP-S41
TLP-S10

Document Created in Japan Aug. 2003 U

LED DISPLAY (Problems Shown on LED Indicator Combination)

Error Code No.	Status of Indicator Light				Trouble and Cause	Solution
	FAN	TEMP	LAMP	ON		
-	(OFF)	(OFF)	(OFF)	(OFF)	Stand-by power is not on. > There's a problem with the power unit or the system microcomputer.	Check the power unit. Check the connector. Check the main PC board.
01	(OFF)	(OFF)	(RED)	(RED)	Lamp error The lamp goes out during use or the lamp does not switch on. > The bulb has reached the end of the life.	Make the lamp cool. Even if it does not work. Change a new lamp. Or it may have a trouble at the ballast power supply.
02	(OFF)	(OFF)	(ORANGE flashing)	(RED)	Lamp cover error The power turns off. > Trouble with the Lamp cover	The lamp cover is not properly fixed. Unplug the power cord and fix it again.
04	(RED)	(OFF)	(OFF)	(RED)	Fan error The power turns off or does not come on. > Trouble with the cooling fans. Error code 04: Intake R Fan error 05: Intake B Fan error 06: PBS Fan error 07: Exhaust Fan error	Check the each cooling fan.
05	(ORANGE)	(OFF)	(OFF)	(RED)		
06	(RED flashing)	(OFF)	(OFF)	(RED)		
07	(ORANGE flashing)	(OFF)	(OFF)	(RED)		
08	(GREEN)	(RED)	(OFF)	(RED)	Temperature error The power turns off or does not come on. > The inside of the projector is too hot. Or it has been operated at the place with high temperature. Error code 08: Intake temperature error 09: Lamp1 temperature error 10: Lamp2 temperature error 11: Panel temperature error 12: Tilt sensor temperature error	Place the projector correctly, so that intake and exhaust fan holes are not disturbed. Turn the projector off, and leave it for a while. Then turn it on again. Clean the air filter.
09	(GREEN)	(ORANGE)	(OFF)	(RED)		
10	(GREEN)	(GREEN)	(OFF)	(RED)		
11	(OFF)	(RED)	(OFF)	(RED)		
12	(OFF)	(ORANGE)	(OFF)	(RED)		
13	(GREEN)	(OFF)	(OFF)	(RED)	Camera error The power turns off caused by camera error. > Transmission problem of the camera unit.	Check the connection between the camera and the main PC board.
14	(GREEN)	(OFF)	(OFF)	(RED flashing)	Device error The power turns off or does not come on. > There are problems with the sensor PC board or the main PC board.	Check the sensor PC board. Check the main PC board. Check the connector.

NOTE

It shows the status of errors. When each error occurs, the projector is cooled displaying the error pattern for 90 seconds. Moreover, it will be cooled under the usual LED pattern for 90 seconds to sift to the Standby mode.

Service Mode

How to sift to the Service mode

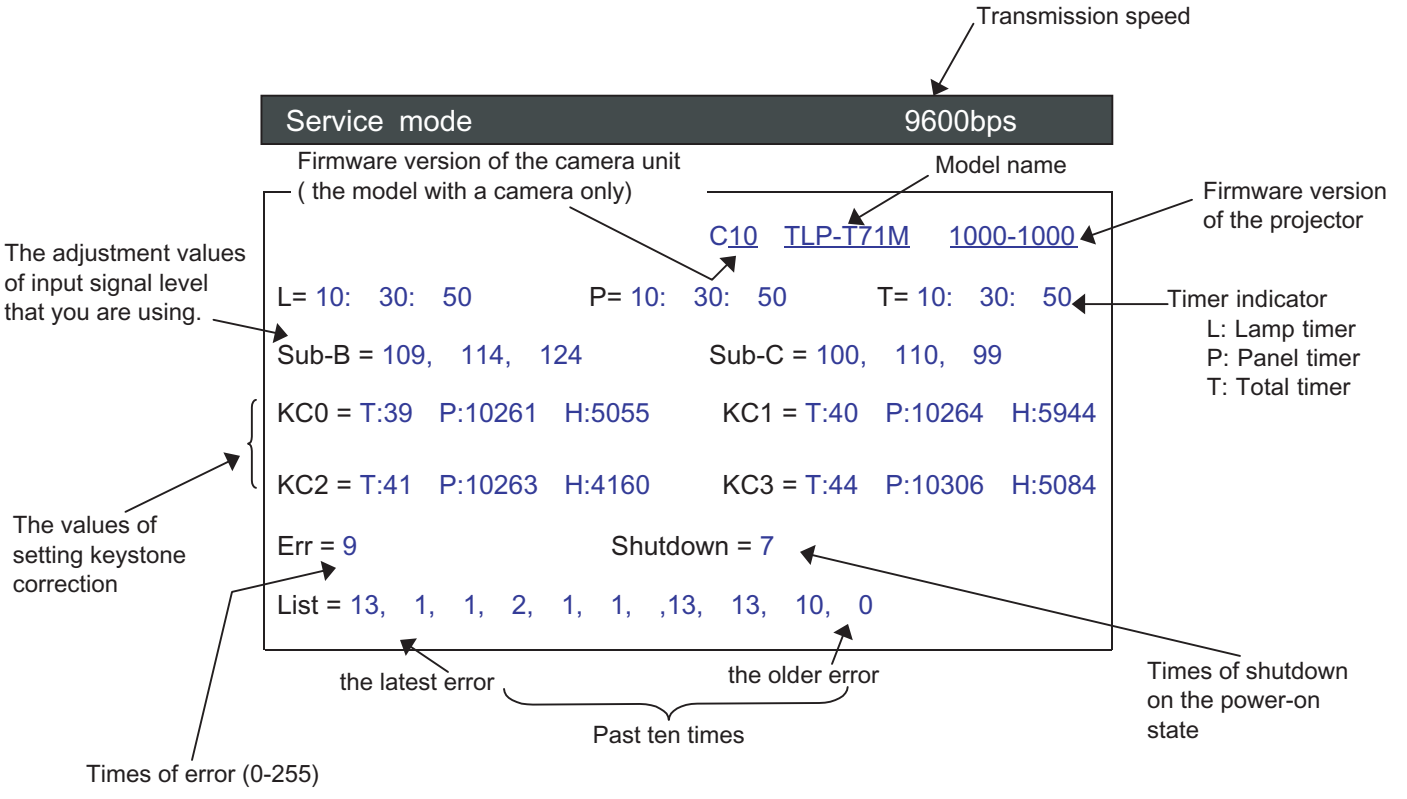
While the Audio level adjustment bar or the Camera gain adjustment bar is displayed on the screen, press the buttons, [INPUT], [ON/STANDBY], [AOUT KEYSTONE] and [AUTO SET] simultaneously.
Then, the projector shifts to the Service mode.

The Service mode will be maintained until you pull the AC plug out.

How to display the Operation state

After the projector shifted to the Service mode, press [AUTO KEYSTONE] button and [VOL.+] button at once.
Then, the Operation state appears on the screen.

When you press [MENU] button, it will disappear.


Transmission speed
Service mode 9600bps
Firmware version of the camera unit
(the model with a camera only)
Model name
Firmware version
of the projector
C10 TLP-T71M 1000-1000
The adjustment values
of input signal level
that you are using.
L= 10: 30: 50 P= 10: 30: 50 T= 10: 30: 50
Timer indicator
L: Lamp timer
P: Panel timer
T: Total timer
Sub-B = 109, 114, 124 Sub-C = 100, 110, 99
KC0 = T:39 P:10261 H:5055 KC1 = T:40 P:10264 H:5944
KC2 = T:41 P:10263 H:4160 KC3 = T:44 P:10306 H:5084
The values of
setting keystone
correction
Err = 9 Shutdown = 7
List = 13, 1, 1, 2, 1, 1, ,13, 13, 10, 0
the latest error
the older error
Past ten times
Times of shutdown
on the power-on
state
Times of error (0-255)

TOSHIBA

FILE NO. 330-200310
PARTS LIST

SERVICE MANUAL

3LCD PROJECTOR

TLP-T70M, TLP-T71M
TLP-T60M, TLP-T61M
TLP-S40, TLP-S41
TLP-S10

Document Created in Japan Aug. 2003 U

PARTS LIST

SAFETY PRECAUTION

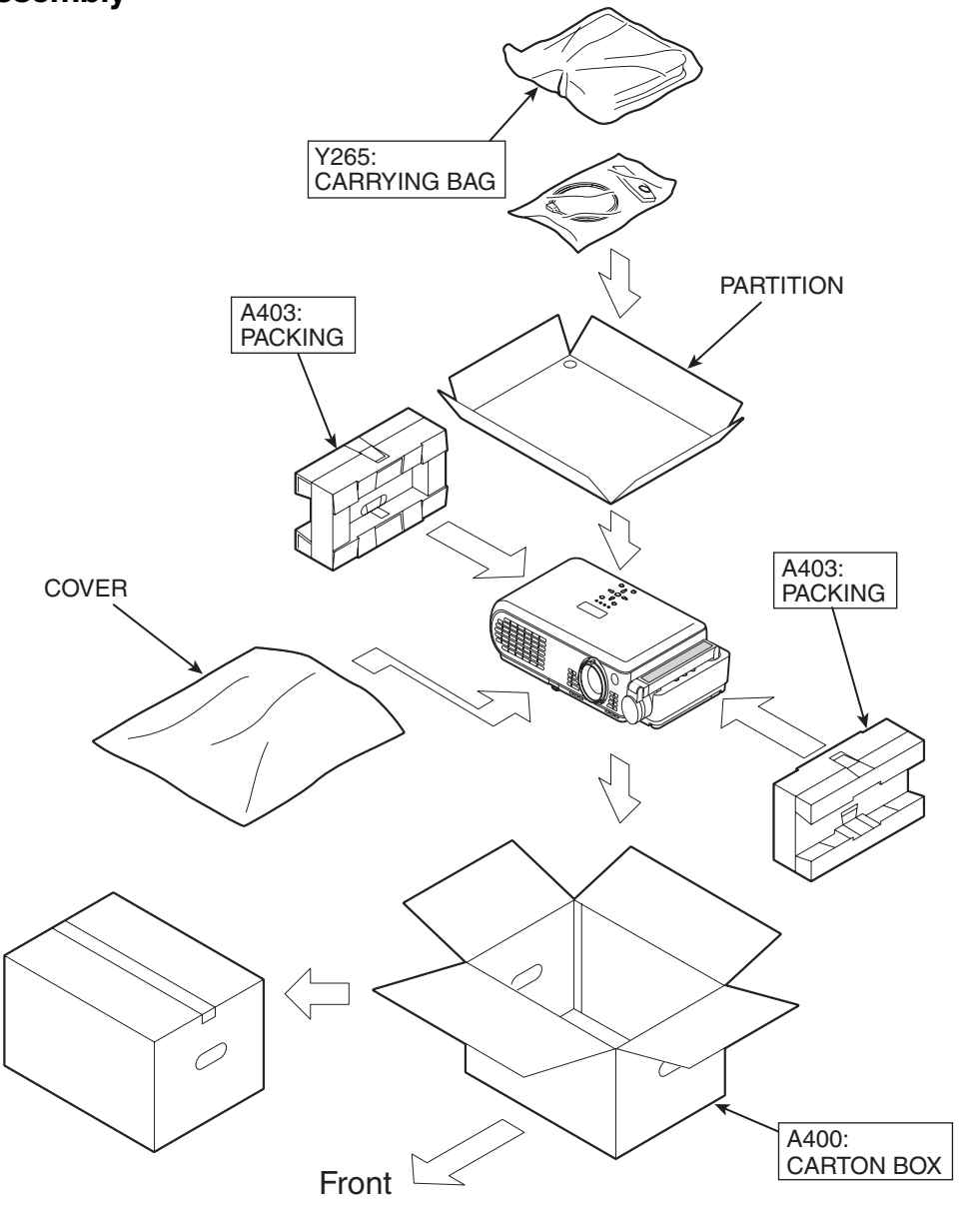
Replace only with part number specified. The mounting position of replacement is to be identical with originals. The substitute replacement parts which do not have the same safety characteristics as specified in the parts list may cause shock, fire or other hazards.

NOTICE

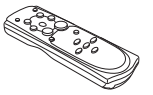
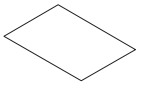
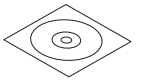
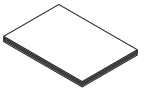
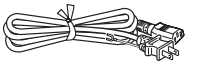
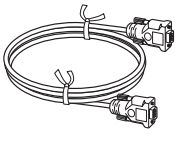
The part number must be used when ordering parts in order to assist in processing, be sure to include the model number and description.

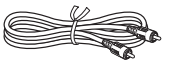
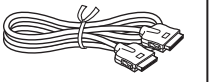
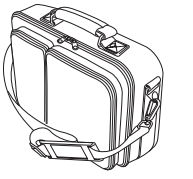
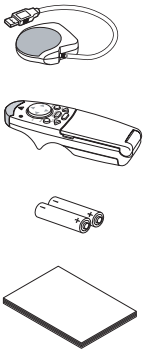
EXPLODED VIEWS

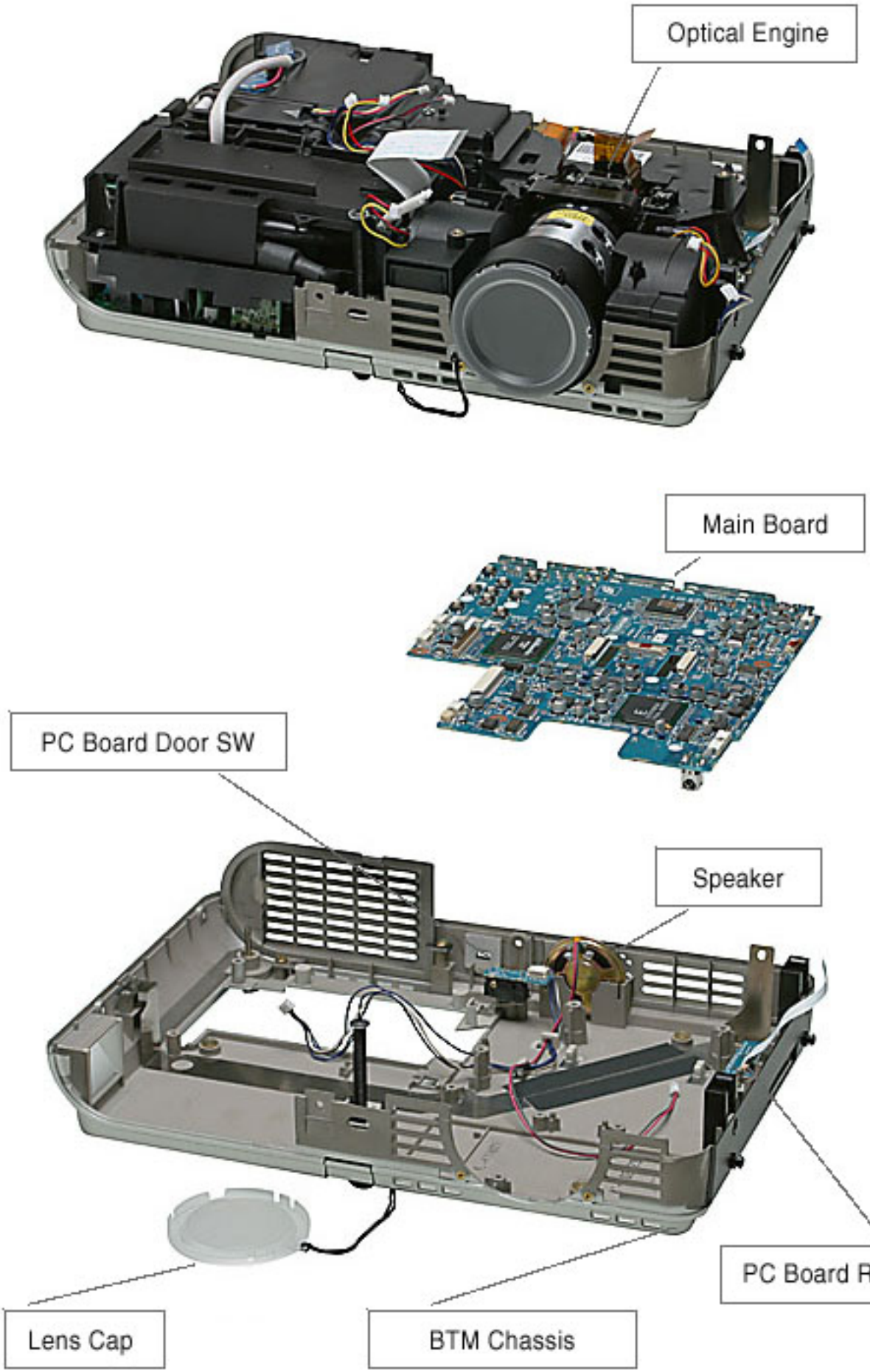
Packing Assembly

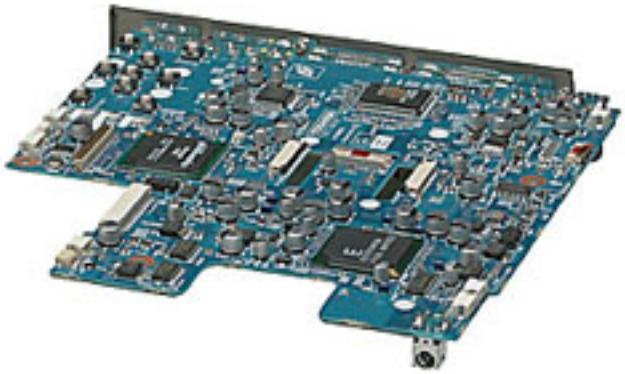


Accessories

PARTS NO.	DESCRIPTION	FORM
Y210	Remote Control Unit	
	Battery	
Y221 | Y229 Y231 Y232	Quick Sheet	
Y200	CD - ROM	
Y201/Y203	Owner's Manual	
Y256/Y260	Power Cord	
Y100	RGB Cable	

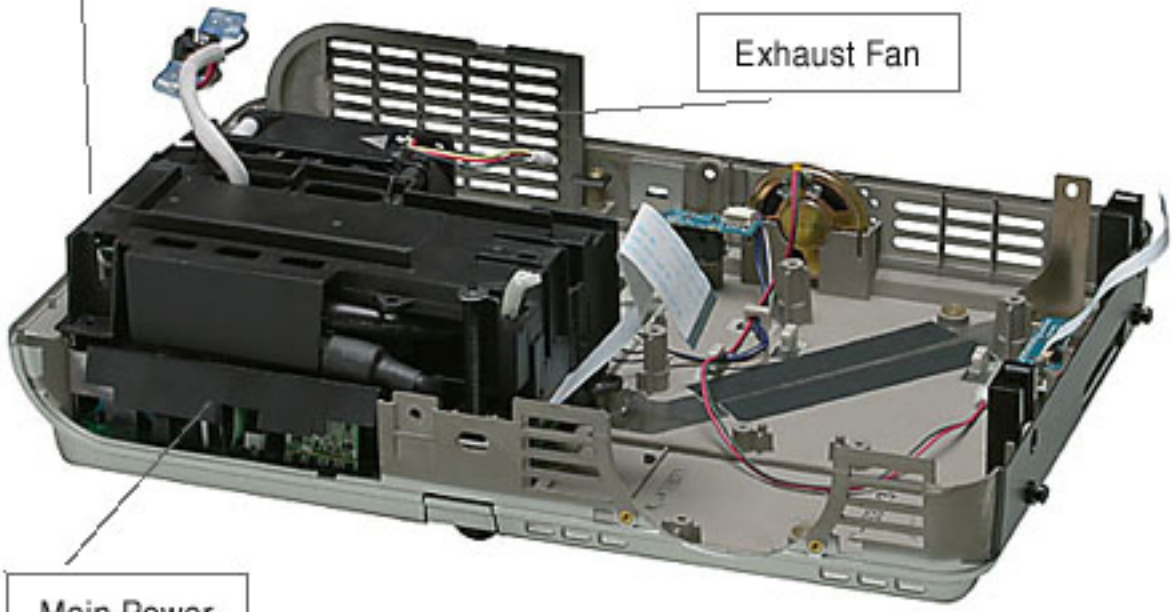
PARTS NO.	DESCRIPTION	FORM
Y101	AV Cable	
Y102	Audio Cable for Computer	
Y103	Audio Cable	
Y050	Camera Extension Cable	
Y265	Carrying Bag	
Y240 Y241	Mouse Remote Control Set	


Optical Engine
Main Board
PC Board Door SW
Speaker
PC Board Relay
Lens Cap
BTM Chassis



Ballast Power Supply

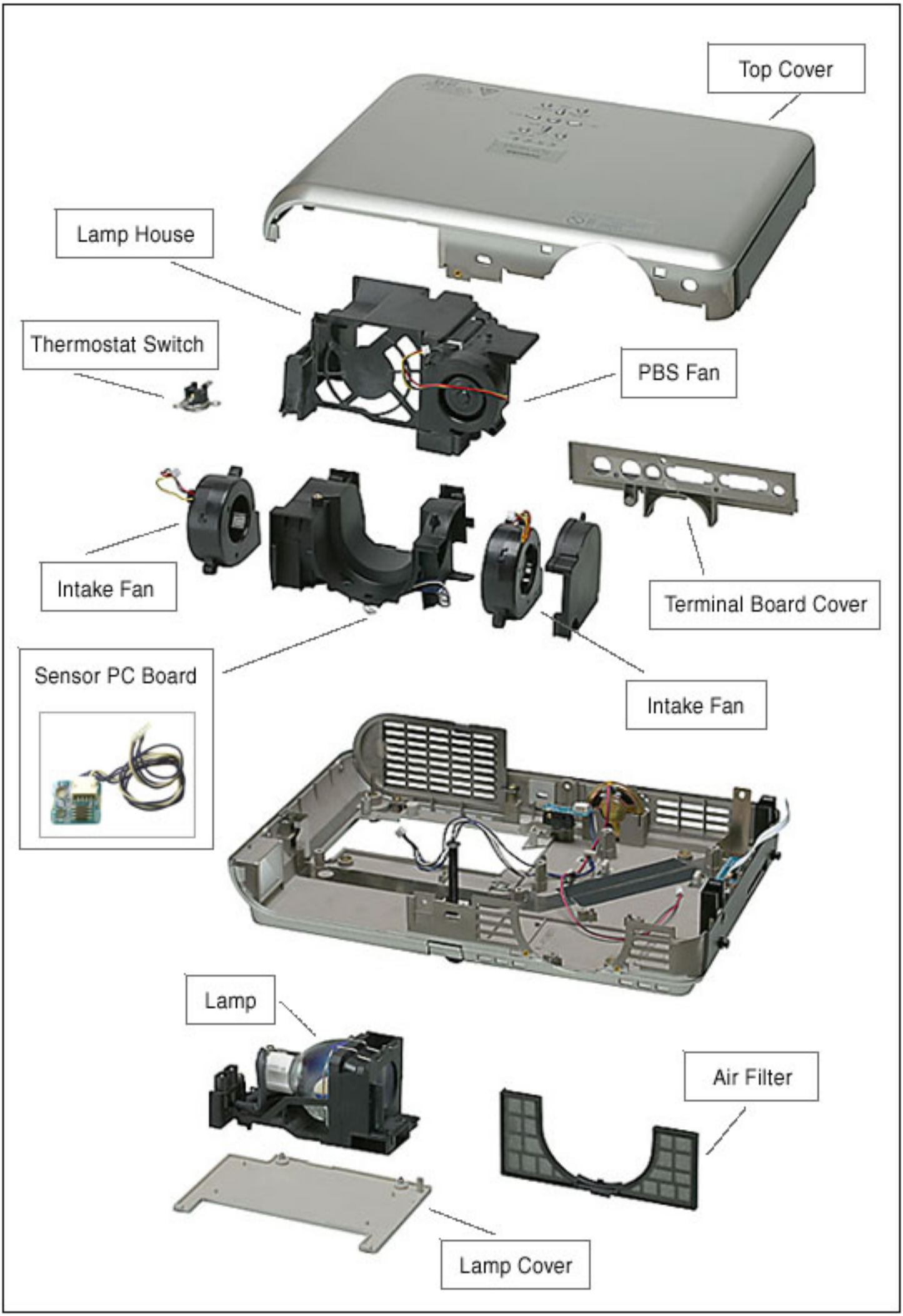
Exhaust Fan



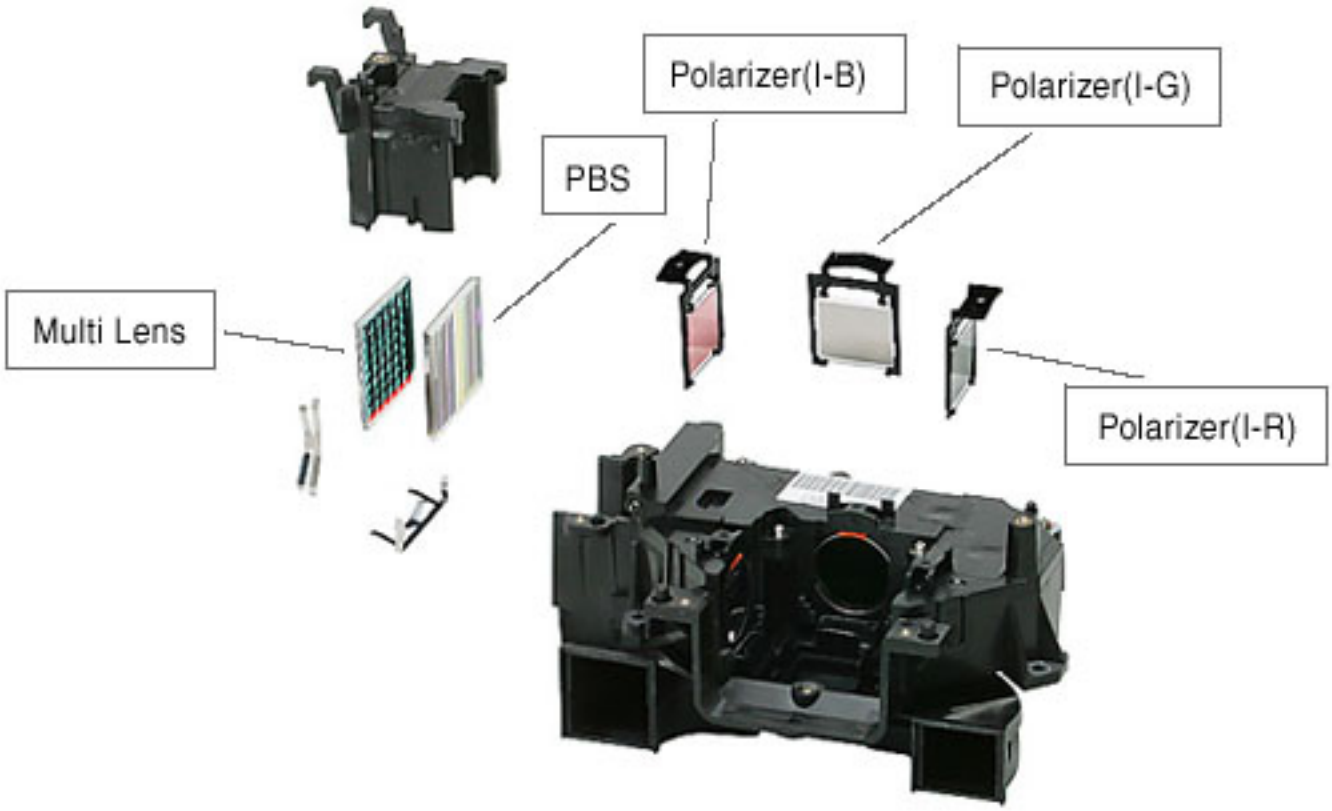
Main Power

Front Panel (L)

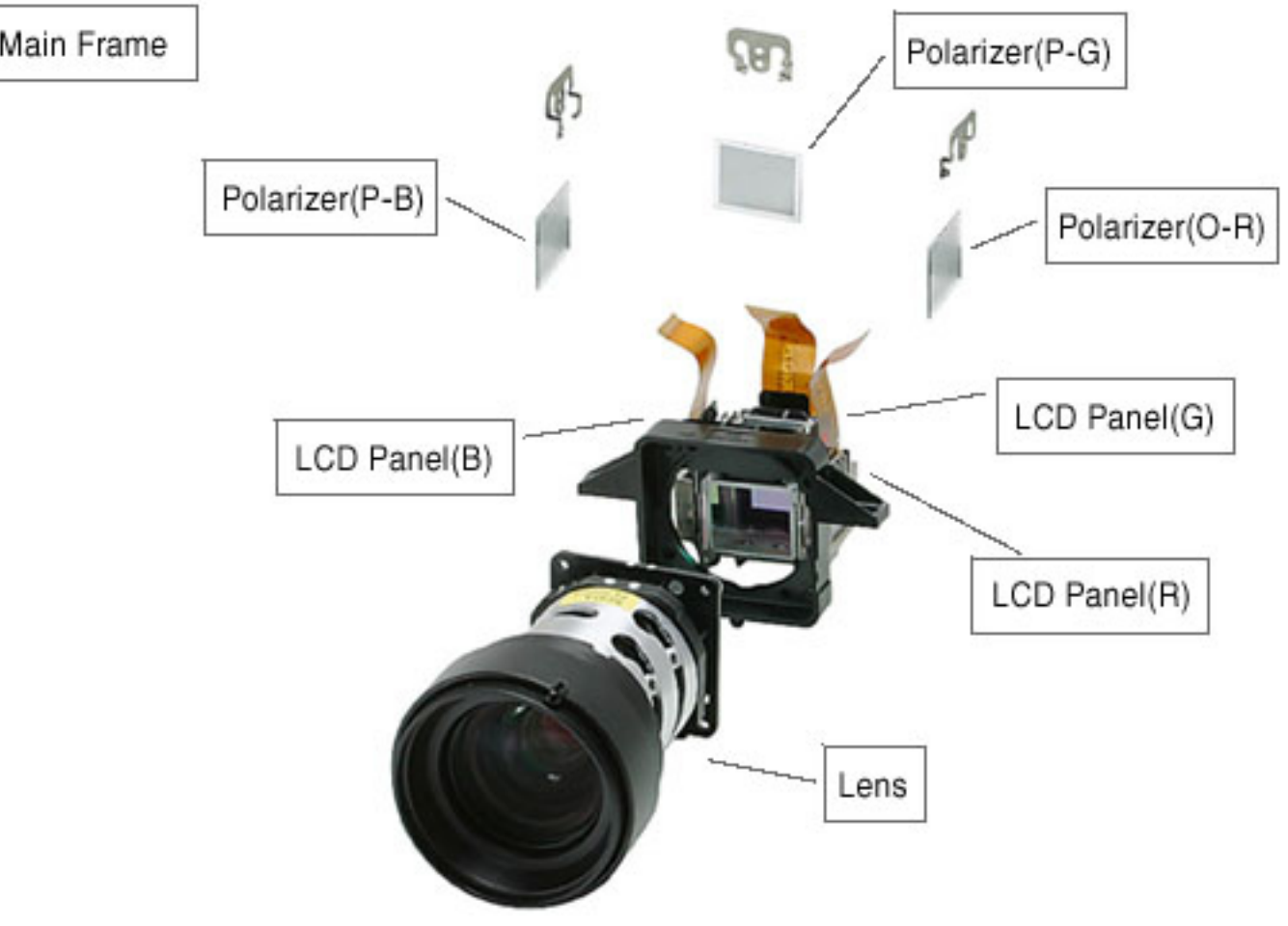
Front Panel (R)

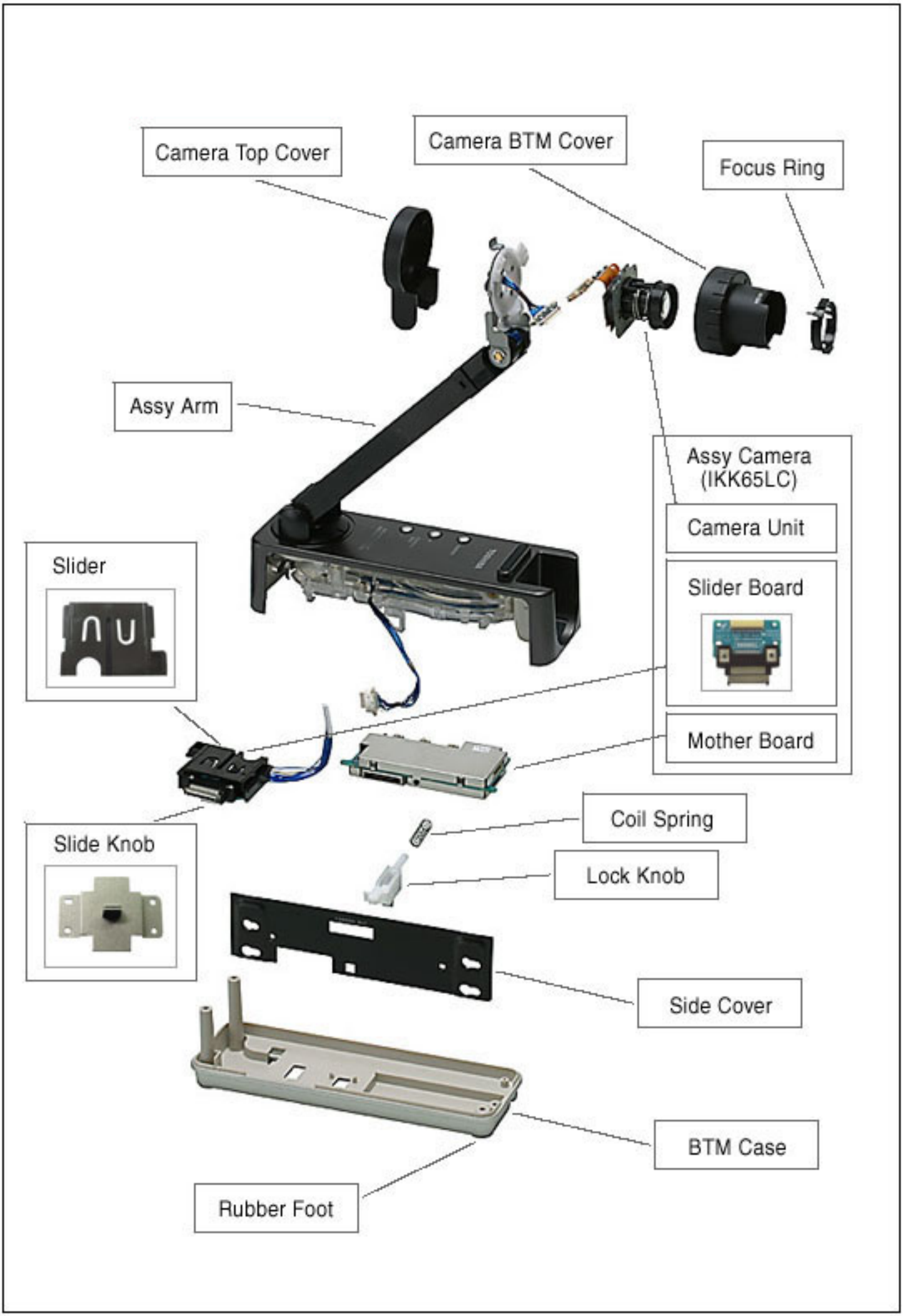

Top Cover
Lamp House
Thermostat Switch
PBS Fan
Intake Fan
Terminal Board Cover
Sensor PC Board
Intake Fan
Lamp
Air Filter
Lamp Cover

Sub Frame

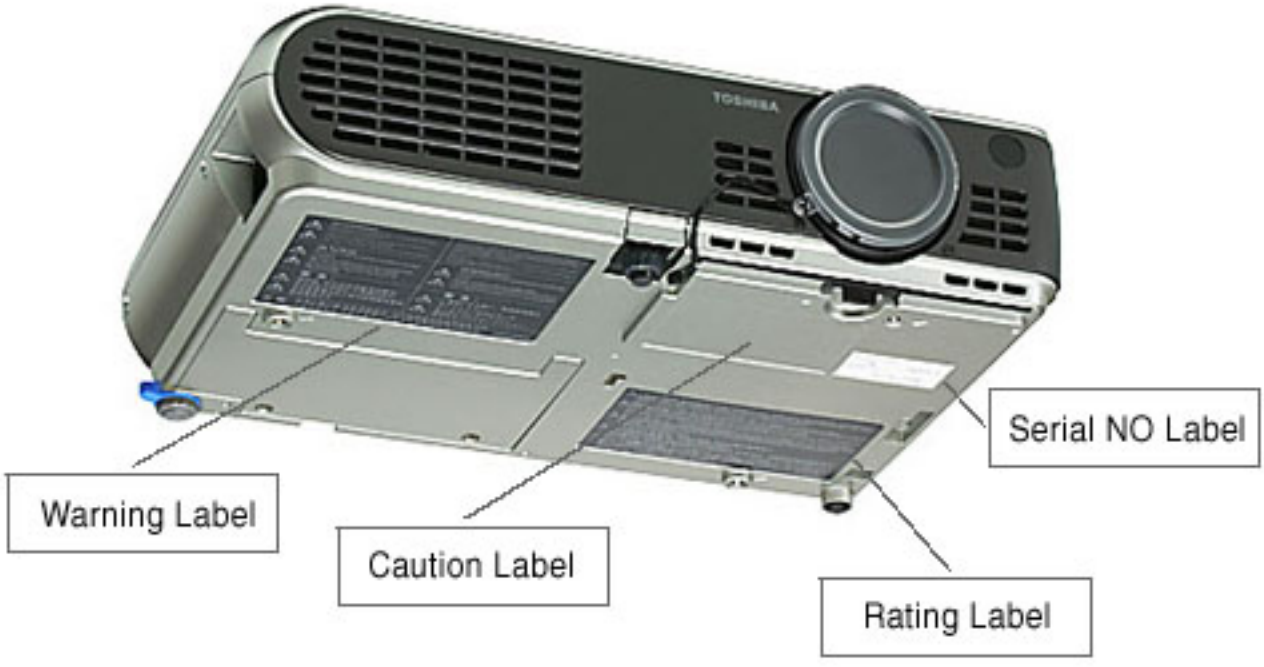


Main Frame




Camera Top Cover
Camera BTM Cover
Focus Ring
Assy Arm
Assy Camera
(IKK65LC)
Camera Unit
Slider Board
Mother Board
Slider
Slide Knob
Coil Spring
Lock Knob
Side Cover
BTM Case
Rubber Foot

Caution Label
Top Cover
Warning Label


Warning Label
Caution Label
Serial NO Label
Rating Label

Extension Cable
2P-2P

P-Holder (T70/T60)
Service Kit

Extension Cable
3P-3P

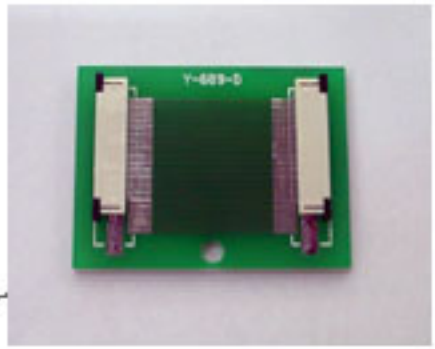
P-Holder (S40/41)
Service Kit

Extension Cable
4P-4P

P-Holder (S10)
Service Kit

Extension Cable
LCD Panel

Extension Cable
Relay Board



Parts List for print

Location	Description	TLP-T71M	TLP-T70M	TLP-T61M	TLP-T60M	TLP-S41	TLP-S40	TLP-S10
A400	CARTON BOX	23067432	23067432	23067432	23067432	23067432	23067432	23067433
P800	P0WER UNIT, APS-M480	23122443	23122443	23122443	23122443	23122443	23122443	23122443
P850	P0WER UNIT, PS-240A-LS-120-17S	23122445	23122445	23122445	23122445	23122445	23122445	23122446
Z100A	INTAKE FAN(A), T60H12-XA	23125907	23125907	23125907	23125907	23125907	23125907	23125907
Z100B	INTAKE FAN(B), TYF400FJ01	23125912	23125912	23125912	23125912	23125912	23125912	23125912
Z101	EXHAUST FAN, D07A-12PHA	23125905	23125905	23125905	23125905	23125905	23125905	23125905
Z102	PBS FAN, D05F-12PS1	23125911	23125911	23125911	23125911	23125911	23125911	23125911
E201R	LCD PANEL (R)	23301538	23301538	23301544	23301544	23301494	23301494	23301550
E201G	LCD PANEL (G)	23301539	23301539	23301545	23301545	23301495	23301495	23301551
E201B	LCD PANEL (B)	23301540	23301540	23301546	23301546	23301496	23301496	23301552
Y240	MOUSE REMOTE CONTROL UNIT	22306521	22306521	22306521	22306521	————	————	————
Y210	REMOTE CONTROL UNIT	22306522	22306522	22306522	22306522	22306522	22306522	22306532
Y241	MOUSE REMOTE CONTROL RECIVER	23306523	23306523	23306523	23306523	————	————	————
SS01	THERMOSTAT SWITCH	23344476	23344476	23344476	23344476	23344476	23344476	23344476
P200	SPEAKER	23351204	23351204	23351204	23351204	23351204	23351204	23351204
Y102	AUDIO CABLE FOR COMPUTER	23368798	23368798	23368798	23368798	23368798	23368798	23368798
Y103	AUDIO CABLE	23368799	23368799	23368799	23368799	23368799	23368799	23368799
Y101	AV CABLE	23368800	23368800	23368800	23368800	23368800	23368800	23368800
Y100	RGB CABLE	23368818	23368818	23368818	23368818	23368818	23368818	23368818
Y260	POWER CORD, US	23372148	23372148	23372148	23372148	23372148	23372148	23372148
Y256	POWER CORD, CH	23372155	23372155	23372155	23372155	23372155	23372155	23372155
Y260	POWER CORD, EU	23372167	23372167	23372167	23372167	23372167	23372167	23372167
Y256	POWER CORD, EU	23372149	23372149	23372149	23372149	23372149	23372149	23372149
E200	OPTICAL ENGINE	23405297	23405297	23405298	23405298	23405299	23405299	23405300
——	LENS	23405302	23405302	23405303	23405303	23405303	23405303	23405304
——	OPTICAL PARTS MAIN FRAME	23405306	23405306	23405307	23405307	23405308	23405308	23405309
——	OPTICAL PARTS SUB FRAME	23405311	23405311	23405311	23405311	23405311	23405311	23405312
——	POLARIZAR, I-R(528)	23405314	23405314	23405314	23405314	23405314	23405314	23405317
——	POLARIZAR, I-G(528)	23405315	23405315	23405315	23405315	23405315	23405315	23405318
——	POLARIZAR, I-B(528)	23405316	23405316	23405316	23405316	23405316	23405316	23405319
——	POLARIZAR, O-R(528)	23405323	23405323	23405323	23405323	23405323	23405323	23405326
——	POLARIZAR, P-G(528)	23405349	23405349	23405347	23405347	23405347	23405347	23405351
——	POLARIZAR, P-B(528)	23405350	23405350	23405348	23405348	23405348	23405348	23405352
——	PBS	23405332	23405332	23405332	23405332	23405332	23405332	23405333
B100	BTM CHASSIS	23411010	23411016	23411010	23411016	23411010	23411016	23411017
B117	FOOT, REA	23436831	23436831	23436831	23436831	23436831	23436831	23436831
B123	DOCKING SCREW PIN	23717139	————	23717139	————	23717139	————	————
B190	LAMP HOUSE	23448688	23448688	23448688	23448688	23448688	23448688	23448688
B250	TERMINAL BOARD COVER	23450742	23450742	23450742	23450742	23450742	23450742	23450747
A100	TOP COVER	23532250	23532250	23532250	23532250	23532250	23532250	23532267
A240	LAMP COVER	23532259	23532259	23532259	23532259	23532259	23532259	23532259
A251	FRONT PANEL (L)	23450744	23450744	23450744	23450744	23450744	23450744	23450749
A252	FRONT PANEL	23540745	23540745	23540745	23540745	23540745	23540745	23540750
A230	AIR FILTER	23528312	23528312	23528312	23528312	23528312	23528312	23528312
A300	TOP TAG	23541134	23121137	23541135	23541138	23541136	23541139	23541140
Y265	CARRYING BAG	23542011	23542011	23542011	23542011	23542011	23542011	————
Y200	CD-ROM OWNER'S MANUAL	23566164	23566164	23566164	23566164	23566164	23566164	23771257
Y201	OWNER'S MANUAL, ENG/FRA/SPA/GER	23566165	23566165	23566165	23566165	23566165	23566165	23566199
Y201	OWNER'S MANUAL, BEIJING	23566167	23566167	23566167	23566167	23566167	23566167	23566201

Parts List for print

Location	Description	TLP-T71M	TLP-T70M	TLP-T61M	TLP-T60M	TLP-S41	TLP-S40	TLP-S10
Y221	QUICK SHEET, ENG	23589551	23589551	23589551	23589551	23589551	23589551	23589564
Y222	QUICK SHEET, FRA	23589552	23589552	23589552	23589552	23589552	23589552	23589565
Y223	QUICK SHEET, SPA	23589553	23589553	23589553	23589553	23589553	23589553	23589566
Y225	QUICK SHEET, GER	23589555	23589555	23589555	23589555	23589555	23589555	23589567
Y226	QUICK SHEET, ITA	23589556	23589556	23589556	23589556	23589556	23589556	23589568
Y227	QUICK SHEET, POR	23589557	23589557	23589557	23589557	23589557	23589557	23589569
Y228	QUICK SHEET, SWE	23589558	23589558	23589558	23589558	23589558	23589558	23589570
Y229	QUICK SHEET, RUS	23589559	23589559	23589559	23589559	23589559	23589559	23589571
Y230	QUICK SHEET, KOR	23589560	23589560	23589560	23589560	23589560	23589560	23589572
Y231	QUICK SHEET, BEI	23589561	23589561	23589561	23589561	23589561	23589561	23589574
Y232	QUICK SHEET, KUA	23589562	23589562	23589562	23589562	23589562	23589562	23589575
Y243	OWNER'S MANUAL, REMOCON	23566168	23566168	23566168	23566168	———	———	———
U001	MAIN BOARD	75000602	75000629	75000613	75000644	75000647	75000651	75000667
U002	SENSOR PC BOARD	75000603	75000630	75000614	75000645	75000648	75000652	75000668
U003	PC BOARD DOOR SW	75000604	75000631	75000615	75000646	75000649	75000653	75000669
U004	PC BOARD RELAY	75000605	———	75000616	———	75000650	———	———
A280	LENS CAP	23890052	23890052	23890052	23890052	23890052	23890052	23890052
A403A	PACKING (R)	23946632	23946632	23946632	23946632	23946632	23946632	23946719
A403B	PACKING (L)	23946633	23946633	23946633	23946633	23946633	23946633	23946720
A403C	PACKING	———	———	———	———	———	———	23946721

Following tools are specially designed for service

———	P-HOLDER SERVICE-KIT (T70/T60)	23587099	23587099	23587099	23587099	———	———	———
———	P-HOLDER SERVICE-KIT (T40)	———	———	———	———	23587138	23587138	———
———	P-HOLDER SERVICE-KIT (S10)	———	———	———	———	———	———	23587100
———	EXTENSION CABLE 2P-2P SERVICE	23509433	23509433	23509433	23509433	23509433	23509433	23509433
———	EXTENSION CABLE 3P-3P SERVICE	23509434	23509434	23509434	23509434	23509434	23509434	23509434
———	EXTENSION CABLE 4P-4P SERVICE	23509435	23509435	23509435	23509435	23509435	23509435	23509435
———	EXTENSION CABLE (LCD PANEL) ×3	23389197	23389197	23389197	23389197	23389197	23389197	23389197
———	RELAY BOARD (LCD PANEL) ×3	23148096	23148096	23148096	23148096	23148096	23148096	23148096

Document camera parts

U006	CAMERA ASSY (IKK65LC)	23771246	———	23771246	———	23771246	———	———
B310	ASSY-ARM	23532254	———	23532254	———	23532254	———	———
———	CAMERA BTM COVER	23532214	———	23532214	———	23532214	———	———
———	CAMERA TOP COVER	23532210	———	23532210	———	23532210	———	———
———	FOCUS RING	23532213	———	23532213	———	23532213	———	———
———	BTM CASE	23532209	———	23532209	———	23532209	———	———
B348	LOCK KNOB	23532225	———	23532225	———	23532225	———	———
B349	COIL SPRING	23836600	———	23836600	———	23836600	———	———
———	SLIDE KNOB	23532211	———	23532211	———	23532211	———	———
———	SLIDER	23532212	———	23532212	———	23532212	———	———
B336	SIDE COVER	23077939	———	23077939	———	23077939	———	———
———	RUBBER FOOT	23436748	———	23436748	———	23436748	———	———
Y050	CAMERA EXTENSION CABLE	23368853	———	23368853	———	23368853	———	———

CAMERA ASSY (IKK65LC) INCLUDES CAMERA UNIT, SLIDER BOARD AND MOTHER BOARD

TOSHIBA CORPORATION
1-1, SHIBAURA 1- CHOME, MINATO - KU, TOKYO 105 - 8001, JAPAN